

This Page Is Inserted by IFW Operations  
and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning documents *will not* correct images,  
please do not report the images to the  
Image Problem Mailbox.**

	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments	Error Definition	Errors
9	BRS	L9	207835	(l-amino adj acid) or glycine or alanine or leucine or isoleucine or threonine or cysteine or cystine or methionine or serine or valine or histidine or lysine or phenylalanine or tyrosine or tryptophan or arginine or asparagine or (glutamic adj acid) or glutamine or proline or (gamma\$1 aminobutyric adj acid) or carnitine or taurine or glutamate	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/06/25 10:14			0
10	BRS	L10	205	1 same 5 same 8 same 9	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/06/25 10:17			0
11	BRS	L11	677432	mineral or vitamin or antioxidant or (omega-3 adj oil) or zinc or (zinc adj oxide)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/06/25 10:16			0
12	BRS	L12	47	10 same 11	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/06/25 10:16			0
13	BRS	L13	5	neocate	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/06/25 10:17			0
14	BRS	L14	0	1 same 5 same 8 same 13	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/06/25 10:19			0
15	BRS	L16	0	10 and 15	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/06/25 10:22			0
16	BRS	L15	18	girsh adj leonard.in.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/06/25 10:20			0
17	BRS	L17	0	5 and 15	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/06/25 10:22			0

	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments	Error Definition	Errors
1	BRS	L1	1834010	composition	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/06/25 09:55			0
2	BRS	L2	392	extracellular adj matrix adj (compound or material)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/06/25 09:57			0
3	BRS	L3	82381	glycosaminoglycan or collagen or cartilage or (chondroitin adj sulfate) or glycoprotein or proteoglycan	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/06/25 09:58			0
4	BRS	L4	17125	glucosamine or (hyaluronic acid) or hyaluronan	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/06/25 09:59			0
5	BRS	L5	91321	2 or 3 or 4	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/06/25 09:59			0
6	BRS	L6	47076	phospholipid or glycolipid or lipoprotein	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/06/25 10:00			0
7	BRS	L7	237407	cerebroside or cephalin or (linolenic adj acid) or (linoleic adj acid) or (eicosapentanoic adj acid) or monoglyceride or diglyceride or triglyceride or lipovitalin or (docosahexanoic adj acid) or (fatty adj acid)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/06/25 10:03			0
8	BRS	L8	2634036 or 7		USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/06/25 10:04			0

=> file medline caplus biosis emb scisearch agricola  
COST IN U.S. DOLLARS SINCE FILE TOTAL  
ENTRY SESSION  
FULL ESTIMATED COST 0.63 0.63

FILE 'MEDLINE' ENTERED AT 13:40:12 ON 25 JUN 2003

FILE 'CAPLUS' ENTERED AT 13:40:12 ON 25 JUN 2003  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'BIOSIS' ENTERED AT 13:40:12 ON 25 JUN 2003  
COPYRIGHT (C) 2003 BIOLOGICAL ABSTRACTS INC.(R)

FILE 'EMBASE' ENTERED AT 13:40:12 ON 25 JUN 2003  
COPYRIGHT (C) 2003 Elsevier Science B.V. All rights reserved.

FILE 'SCISEARCH' ENTERED AT 13:40:12 ON 25 JUN 2003  
COPYRIGHT 2003 THOMSON ISI

FILE 'AGRICOLA' ENTERED AT 13:40:12 ON 25 JUN 2003

=> s composition  
L1 2893766 COMPOSITION

=> s extracellular (w) matrix (w) (compound or material)  
L2 651 EXTRACELLULAR (W) MATRIX (W) (COMPOUND OR MATERIAL)

=> s glycosaminoglycan or collagen or cartilage or (chondroitin sulfate) or glycoprotein or proteo  
L3 1146174 GLYCOSAMINOGLYCAN OR COLLAGEN OR CARTILAGE OR (CHONDROITIN SULFA  
TE) OR GLYCOPROTEIN OR PROTEOGLYCAN

=> s glucpsamine or (hyaluronic acid) or hyaluronan  
L4 49772 GLUCPSAMINE OR (HYALURONIC ACID) OR HYALURONAN

=> s l2 or l3 or l4  
L5 1171949 L2 OR L3 OR L4

=> s phospholipid or glycolipid or lipoprotein  
L6 781870 PHOSPHOLIPID OR GLYCOLIPID OR LIPOPROTEIN

=> s cerebrocide or cephalin or (linolenicacid) or (linoleic acid) or (eicosopentanoic acid) or mo  
3 FILES SEARCHED...  
L7 924204 CEREBROCIDIC OR CEPHALIN OR (LINOLENICACID) OR (LINOLEIC ACID)  
OR (EICOSOPENTANOIC ACID) OR MONOGLYCERIDE OR DIGLYCERIDE OR  
TRIGLYCERIDE OR LIPOVITALIN OR (DOCOSAHEXANOIC ACID) OR (FATTY  
ACID)

=> s l6 or l7  
L8 1487890 L6 OR L7

=> s (l-amino acid) or glycine or alanine or leucine or isoleucine or threonine or cysteine or cys  
4 FILES SEARCHED...  
L9 1613239 (L-AMINO ACID) OR GLYCINE OR ALANINE OR LEUCINE OR ISOLEUCINE  
OR THREONINE OR CYSTEINE OR CYSTINE OR METHIONINE OR SERINE OR  
VALINE OR HISTADINE OR LYSINE

=> s phenylalanine or tyrosine or tryptaphan or arginine or asparagine or (glutamic acid) or glutam  
4 FILES SEARCHED...  
L10 1538454 PHENYLALANINE OR TYROSINE OR TRYPTAPHAN OR ARGININE OR ASPARGINE  
OR (GLUTAMIC ACID) OR GLUTAMATE OR GLUTAMINE OR PROLINE OR  
(GAMMA-AMINO BUTYRIC ACID) OR CARNITINE OR TAURINE

=> s l9 or l10  
5 FILES SEARCHED...  
L11 2776078 L9 OR L10

=> d his

(FILE 'HOME' ENTERED AT 13:38:13 ON 25 JUN 2003)

FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH, AGRICOLA' ENTERED AT  
13:40:12 ON 25 JUN 2003

L1 2893766 S COMPOSITION  
L2 651 S EXTRACELLULAR (W) MATRIX (W) (COMPOUND OR MATERIAL)

L3 1146174 S GLYCOSAMINOGLYCAN OR COLLAGEN OR CARTILAGE OR (CHONDROITIN SU  
 L4 49772 S GLUCPSAMINE OR (ALURONIC ACID) OR HYALURONAN  
 L5 1171949 S L2 OR L3 OR L4  
 L6 781870 S PHOSPHOLIPID OR GLYCOLIPID OR LIPOPROTEIN  
 L7 924204 S CEREBROCID OR CEPHALIN OR (LINOLENICACID) OR (LINOLEIC ACID)  
 L8 1487890 S L6 OR L7  
 L9 1613239 S (L-AMINO ACID) OR GLYCINE OR ALANINE OR LEUCINE OR ISOLEUCINE  
 L10 1538454 S PHENYLALANINE OR TYROSINE OR TRYPTAPHAN OR ARGININE OR ASPARG  
 L11 2776078 S L9 OR L10

=> s l1 (p) l5 (p) l8 (p) l11  
 L12 243 L1 (P) L5 (P) L8 (P) L11

=> s l12 (p) (therapeutic or pharmaceutic or medicament)  
 L13 2 L12 (P) (THERAPEUTIC OR PHARMACEUTIC OR MEDICAMENT)

=> duplicate remove l13  
 DUPLICATE PREFERENCE IS 'CAPLUS, BIOSIS'  
 KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n  
 PROCESSING COMPLETED FOR L13  
 L14 2 DUPLICATE REMOVE L13 (0 DUPLICATES REMOVED)

=> d l14 1-2 ibib abs

L14 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2003 ACS  
 ACCESSION NUMBER: 1998:542962 CAPLUS  
 DOCUMENT NUMBER: 129:166230  
 TITLE: Compositions and methods for prevention and treatment  
 of vascular degenerative diseases  
 INVENTOR(S): Kosbab, John V.  
 PATENT ASSIGNEE(S): USA  
 SOURCE: PCT Int. Appl., 62 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9833494	A1	19980806	WO 1998-US2005	19980204
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9861414	A1	19980825	AU 1998-61414	19980204
EP 1021177	A1	20000726	EP 1998-906094	19980204
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2001511153	T2	20010807	JP 1998-533193	19980204
US 2001031744	A1	20011018	US 2001-827251	20010405
US 2003108624	A1	20030612	US 2002-187318	20020628
PRIORITY APPLN. INFO.:				
			US 1997-37084P	P 19970204
			US 1997-43262P	P 19970417
			US 1998-18273	B1 19980204
			WO 1998-US2005	W 19980204
			US 2001-827251	B1 20010405

AB This invention relates to nutrient and \*\*\*therapeutic\*\*\*  
 \*\*\*compsns\*\*\* for treatment and prevention of symptoms and disease conditions assocd. with microangiopathy and macroangiopathy and to methods using the \*\*\*compsns\*\*\*. In particular, the invention relates to  
 \*\*\*compsns\*\*\* useful in the treatment of diabetic retinopathy and nephropathy, to \*\*\*compsns\*\*\* useful in the treatment of other retinal disorders including macular degeneration and cataracts, to \*\*\*compsns\*\*\* useful in wound healing, to \*\*\*compsns\*\*\* useful for treatment and prevention of neuropathy, to \*\*\*compsns\*\*\* useful for treatment and prevention of cardiovascular disease and to \*\*\*compsns\*\*\* useful for the treatment and prevention of dental and periodontal disorders. An exemplary diabetic \*\*\*compsn\*\*\* contains bilberry ext., Ca (Krebs), \*\*\*chondroitin\*\*\*, \*\*\*sulfate\*\*\*, Cr picolinate, Co Q10, Fenugreek seed powder, Flax seed powder, folic acid, \*\*\*linoleic\*\*\*, \*\*\*acid\*\*\*, Ginkgo biloba, Gymnema sylvestre, \*\*\*taurine\*\*\* (or homotaurine), grape seed ext., acetyl L- \*\*\*carnitine\*\*\*, lutein, Mg (Krebs),

N-acetyl-L- \*\*\*cysteine\*\*\* pine bark ext., phytosterol complex, K  
citrate, protamine sulfate, \*\*\*cartilage\*\*\*, soy isolate, green  
tea polyphenols, vitamin A, vitamin B2, vitamin B6, vitamin B12, vitamin  
C, vitamin E, and Zn (Krebs).

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 2 OF 2 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.  
ACCESSION NUMBER: 1992:452274 BIOSIS  
DOCUMENT NUMBER: BA94:93674  
TITLE: MOLECULAR AND CELLULAR EFFECTS OF BUTYRATE.  
AUTHOR(S): KRUH J; DEFER N; TICHONICKY L  
CORPORATE SOURCE: FACULTE MEDECINE COCHIN, ICGM-URA CNRS 1147, 24 RUE DU  
FAUBOURG-SAINT-JACQUES, 75014 PARIS.  
SOURCE: C R SEANCES SOC BIOL FIL, (1992) 186 (1-2), 12-24.  
CODEN: CRSBAW. ISSN: 0037-9026.  
FILE SEGMENT: BA; OLD  
LANGUAGE: French

AB Butyrate has a dramatic effect on transformed cells in culture. This effect disappears as soon as butyrate is removed from the medium. The other short chain \*\*\*fatty\*\*\* \*\*\*acids\*\*\* are much less effective. Butyrate produces an arrest of cell proliferation at the early G1 phase of the cell cycle. The effect is very general and may be used for cell growth synchronization. This compound increases the expression of the c-fos oncogene and inhibits the expression of c-myc in all phases of the cell cycle. Butyrate modulates the expression of several genes. In general it induces the expression of markers of cell differentiation. Many studies have been devoted to hemoglobin synthesis which is induced in erythroleukemia cells. In general it induces the synthesis of embryonic and of fetal hemoglobin, and delays and even suppresses the switch to adult hemoglobin, which could be useful for the treatment of sickle cell anemia and .beta. thalassemia. This effect of butyrate seems to require specific DNA regulatory sequences. Butyrate induces the synthesis of alkaline phosphatase, placental and intestinal isozymes, especially in cells where these syntheses are ectopic. It has the same effect on peptidic hormone syntheses and also on receptors of thyroid hormone and insulin. It stimulates their synthesis in cells which are poor in receptor and inhibits the synthesis in cells which have high amounts of these receptors. The use of antibiotics and of the run on method strongly suggest that butyrate acts at the transcriptional level. Butyrate inhibits the induction of proteins, including enzymes, by steroid hormones as has been shown for the induction of \*\*\*tyrosine\*\*\* aminotransferase by glucocorticoids, of ovalbumin and transferrin by estradiol in chick oviduct. Butyrate strongly alters cell morphology, usually it produces an enlargement of the cells with formation of protrusions. In HTC cells alteration of nucleoli and of the nuclear shape are observed. All these alterations are reversible and the cells recover the normal morphology upon removal of butyrate. These alterations result at least partly from modifications of the cytoskeleton: induction of vimentin and cytokeratin, formation of microfilaments, of microtubules and of actin fibers. The external matrix is also modified, as are the cell surface \*\*\*glycoproteins\*\*\*, and gangliosides. Most of these alterations are consistent with the loss of transformation characteristics of the cell. The mechanism of action of butyrate has been studied by many authors. It has been well established that butyrate induces an hyperacetylation of histones by inhibiting histone deacetylases, which is consistent with its stimulatory effect on gene expression. However this mechanism is too general to explain the specificity of action of the compound. It has been established by the use of DNase I, of micrococcal nuclease that butyrate alters chromatin structure. Hybridization kinetic studies have established that the mRNA populations are modified by butyrate treatment. Other hypotheses may be suggested: an effect of butyrate on the synthesis and the activity of retinoic acid, on D3 hormone and on interferon... Butyrate could also act by modifying the lipid \*\*\*composition\*\*\* of cell membranes. Several experiments suggest that butyrate could act on DNA regulatory sequences or gene promoters. This effect would be specific and would require transacting proteins. The use of butyrate in \*\*\*therapeutics\*\*\* would require the synthesis of new molecules including butyrate but more active and metabolized at a slower rate. Several such molecules have been synthesized: monobutyrate 3 (or 6) monoacetate glucose, pivallyloxymethyl-butyrate. The use of such molecules in human \*\*\*therapeutics\*\*\* has been suggested, especially in hematology (sickle cell anemia, .beta. thalassemia) and in cancerology.

(FILE 'HOME' ENTERED AT 13:38:13 ON 25 JUN 2003)

FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH, AGRICOLA' ENTERED AT 13:40:12 ON 25 JUN 2003

L1 2893766 S COMPOSITION  
L2 651 S EXTRACELLULAR (W) MATRIX (W) (COMPOUND OR MATERIAL)  
L3 1146174 S GLYCOSAMINOGLYCAN OR COLLAGEN OR CARTILAGE OR (CHONDROITIN SU  
L4 49772 S GLUCPSAMINE OR (HYALURONIC ACID) OR HYALURONAN  
L5 1171949 S L2 OR L3 OR L4  
L6 781870 S PHOSPHOLIPID OR GLYCOLIPID OR LIPOPROTEIN  
L7 924204 S CEREBROCID OR CEPHALIN OR (LINOLENICACID) OR (LINOLEIC ACID)  
L8 1487890 S L6 OR L7  
L9 1613239 S (L-AMINO ACID) OR GLYCINE OR ALANINE OR LEUCINE OR ISOLEUCINE  
L10 1538454 S PHENYLALANINE OR TYROSINE OR TRYPTAPHAN OR ARGININE OR ASPARG  
L11 2776078 S L9 OR L10  
L12 243 S L1 (P) L5 (P) L8 (P) L11  
L13 2 S L12 (P) (THERAPEUTIC OR PHARMACEUTIC OR MEDICAMENT)  
L14 2 DUPLICATE REMOVE L13 (0 DUPLICATES REMOVED)

=> s mineral or vatamin or antioxidant or (omega-3 oil) or zinc or (zinc oxide)  
L15 1747792 MINERAL OR VAMIN OR ANTIOXIDANT OR (OMEGA-3 OIL) OR ZINC OR  
(ZINC OXIDE)

=> s l12 (p) l15  
L16 23 L12 (P) L15

=> duplicate remove l16  
DUPLICATE PREFERENCE IS 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH, AGRICOLA'  
KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n  
PROCESSING COMPLETED FOR L16  
L17 9 DUPLICATE REMOVE L16 (14 DUPLICATES REMOVED)

=> s l17 not l14  
L18 9 L17 NOT L14

=> d l18 1-9 ibib abs

L18 ANSWER 1 OF 9 MEDLINE  
ACCESSION NUMBER: 1999066215 MEDLINE  
DOCUMENT NUMBER: 99066215 PubMed ID: 9849353  
TITLE: Growth, development and differentiation: a functional food  
science approach.  
AUTHOR: Koletzko B; Aggett P J; Bindels J G; Bung P; Ferre P; Gil  
A; Lentze M J; Roberfroid M; Strobel S  
CORPORATE SOURCE: Kinderpoliklinik, Klinikum Innenstadt der  
Ludwig-Maximilians-Universitat, Munchen, Germany..  
berthold.koletzko@kk-i.med.uni-muenchen.de  
SOURCE: BRITISH JOURNAL OF NUTRITION, (1998 Aug) 80 Suppl 1 S5-45.  
Ref: 417  
Journal code: 0372547. ISSN: 0007-1145.  
PUB. COUNTRY: ENGLAND: United Kingdom  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)  
(REVIEW, ACADEMIC)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 199812  
ENTRY DATE: Entered STN: 19990115  
Last Updated on STN: 19990115  
Entered Medline: 19981215

AB Few other aspects of food supply and metabolism are of greater biological  
importance than the feeding of mothers during pregnancy and lactation, and  
of their infants and young children. Nutritional factors during early  
development not only have short-term effects on growth, body  
\*\*\*composition\*\*\* and body functions but also exert long-term effects on  
health, disease and mortality risks in adulthood, as well as development  
of neural functions and behaviour, a phenomenon called 'metabolic  
programming'. The interaction of nutrients and gene expression may form  
the basis of many of these programming effects and needs to be  
investigated in more detail. The relation between availability of food  
ingredients and cell and tissue differentiation and its possible uses for  
promoting health and development requires further exploration. The course  
of pregnancy, childbirth and lactation as well as human milk  
\*\*\*composition\*\*\* and the short- and long-term outcome of the child are  
influenced by the intake of foods and particularly micronutrients, e.g.  
polyunsaturated \*\*\*fatty\*\*\* \*\*\*acids\*\*\*, Fe, Zn and I. Folic acid  
supplementation from before conception through the first weeks of

pregnancy can markedly reduce the occurrence of severe embryonic malformations; other potential benefits of modulating nutrient supply on maternal and child health should be further evaluated. The evaluation of dietary effects on child growth requires epidemiological and field studies as well as evaluation of specific cell and tissue growth. Novel substrates, growth factors and conditionally essential nutrients (e.g. growth factors, amino acids, polyunsaturated \*\*\*fatty\*\*\* \*\*\*acids\*\*\* ) may be potentially useful as ingredients in functional foods and need to be assessed carefully. Intestinal growth, maturation, and adaptation as well as long-term function may be influenced by food ingredients such as oligosaccharides, gangliosides, high-molecular-mass \*\*\*glycoproteins\*\*\*, bile salt-activated lipase, pre- and probiotics. There are indications for some beneficial effects of functional foods on the developing immune response, for example induced by \*\*\*antioxidant\*\*\* vitamins, trace elements, \*\*\*fatty\*\*\* \*\*\*acids\*\*\*, \*\*\*arginine\*\*\*, nucleotides, and altered antigen contents in infant foods. Peak bone mass at the end of adolescence can be increased by dietary means, which is expected to be of long-term importance for the prevention of osteoporosis at older ages. Future studies should be directed to the combined effects of Ca and other constituents of growing bone, such as P, Mg and Zn, as well as vitamins D and K, and the trace elements F and B. Pregnancy and the first postnatal months are critical time periods for the growth and development of the human nervous system, processes for which adequate substrate supplies are essential. Early diet seems to have long-term effects on sensory and cognitive abilities as well as behaviour. The potential beneficial effects of a balanced supply of nutrients such as I, Fe, Zn and polyunsaturated \*\*\*fatty\*\*\* \*\*\*acids\*\*\* should be further evaluated. Possible long-term effects of early exposure to tastes and flavours on later food choice preferences may have a major impact on public health and need to be further elucidated. The use of biotechnology and recombinant techniques may offer the opportunity to include various bioactive substances in special dietary products, such as human milk proteins, peptides, growth factors, which may have beneficial physiological effects, particularly in infancy and early childhood.

L18 ANSWER 2 OF 9 MEDLINE  
 ACCESSION NUMBER: 93122938 MEDLINE  
 DOCUMENT NUMBER: 93122938 PubMed ID: 1335970  
 TITLE: The metabolic response to two very low energy diets (VLED) of differing amino acid composition during weight reduction.  
 AUTHOR: Gougeon R  
 CORPORATE SOURCE: McGill Nutrition and Food Science Centre, Royal Victoria Hospital, Montreal, Quebec, Canada.  
 SOURCE: INTERNATIONAL JOURNAL OF OBESITY AND RELATED METABOLIC DISORDERS, (1992 Dec) 16 (12) 1005-12.  
 Journal code: 9313169. ISSN: 0307-0565.  
 PUB. COUNTRY: ENGLAND: United Kingdom  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 199302  
 ENTRY DATE: Entered STN: 19930226  
 Last Updated on STN: 19970203  
 Entered Medline: 19930209

AB Nitrogen (N) sparing and even equilibrium have been achieved in obese subjects with all-protein weight-reducing very low energy diets (VLED) apparently independently of the content of essential amino acids. This study assessed whether the metabolic response observed at week 3 of an all-protein VLED with 46% of amino acids (aa) as essential was modified during week 4, when consuming a protein source that provided 16% of amino acids as essential. Six healthy obese subjects (BMI: 35.3 +/- 1.3 kg/m2, weight 90 +/- 9 kg) were given a 1.72 MJ (400 kcal) all protein (93 g) VLED and a multi-vitamin- \*\*\*mineral\*\*\* supplement daily for four weeks. During weeks 1 to 3, the protein was casein-soy (46% essential aa) and during week 4, tryptophan- and \*\*\*methionine\*\*\* -supplemented \*\*\*collagen\*\*\* hydrolysate (16% essential aa). At week 3, decreases in plasma glucose, insulin, cholesterol, blood pH and bicarbonate, and increases in plasma free \*\*\*fatty\*\*\* \*\*\*acids\*\*\*, serum urea, uric acid and blood and urine ketones occurred compared to baseline. These adaptations were unchanged at week 4. N balance returned toward equilibrium by day 23 remaining at values close to 0 despite the change in diet \*\*\*composition\*\*\*. Mean negative N balance did not differ between weeks 3 and 4 (-1.1 +/- 0.5 g vs. -0.6 +/- 0.5 g/day) and neither did mean urinary ammonium N excretion (0.71 +/- 0.08 vs. 0.73 +/- 0.07 g/day). Urinary urea N excretion tended to increase with the \*\*\*collagen\*\*\* -based diet reflecting the greater proportion of N in this



L18 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2003:281939 CAPLUS

DOCUMENT NUMBER: 138:309347

TITLE: Composition and methods for skin rejuvenation and repair

INVENTOR(S): Jain, Deepak

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 13 pp., Cont.-in-part of U.S. Ser. No. 313,306.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003068297	A1	20030410	US 2002-222949	20020816
PRIORITY APPLN. INFO.:				
			US 2001-313306	A2 20010818
			US 2001-313307	A2 20010818
			US 2001-313313	A2 20010818
			US 2001-313314	A2 20010818

AB \*\*\*Compns\*\*\* . for the repair of mammalian skin contain cell growth enhancers to increase the growth rate of skin cells, nutrients to support log phase growth of skin cells, extracellular matrix proteins, stimulators of extracellular matrix proteins, and penetration enhancers. The \*\*\*compns\*\*\* . are effective for repairing and rejuvenating mammalian skin, such that aging skin treated with the \*\*\*compns\*\*\* . has a significant redn. in the no. of fine lines and wrinkles. The \*\*\*compns\*\*\* . are also effective for promoting the healing of skin that has suffered a wound, such as a sunburn or abrasion, and for promoting the growth of hair on the scalp. The \*\*\*compn\*\*\* . is applied as a coating on a medical or surgical device selected from the group consisting of sutures, implants, homeostatic plugs, dressings, gauze and pads. For example, an ointment with an antimicrobial agent or antibiotics for wound healing was prepd. contg. D-glucose 2.0-6.0 g/ \*\*\*l\*\*\*, \*\*\*amino\*\*\* \*\*\*acids\*\*\* 4.0-150.0 mg/L, vitamins (B12, choline chloride, and inositol) 0.5-15.0 mg/L, sodium bicarbonate buffer 2.0-3.0 g/L, \*\*\*minerals\*\*\* (calcium chloride, magnesium sulfate) 25.0-150.0 mg/L, trace metals (ferric nitrate, ferrous, \*\*\*zinc\*\*\* and cupric sulfates) 0.001-0.6 mg/L, \*\*\*linoleic\*\*\* \*\*\*acid\*\*\* 0.03-0.3 .mu.g/L, proteins ( \*\*\*collagens\*\*\*, insulin, transferrin) 0.1-3.0 mg/L, EGF 0.1-10.0 mg/L, fibronectin 5.0-50.0 mg/L, growth factors (TGF-.beta., VEGF) 0.1-10.0 mg/L, fibrous proteins (elastin, \*\*\*collagen\*\*\* ) 0.1-3.0%, Na ascorbate 30-150 .mu.g/L, \*\*\*hyaluronic\*\*\* \*\*\*acid\*\*\* 1.0-20.0 mg/L, glucosamines (heparin, \*\*\*chondroitin\*\*\* \*\*\*sulfate\*\*\* ) 0.1-10 mg/L, aggrecan, alc. as penetration enhancer 0-20.0 mg/L, and water to 1 L.

L18 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2001:380356 CAPLUS

DOCUMENT NUMBER: 134:371584

TITLE: Antidandruff hair conditioning composition

INVENTOR(S): Sakai, Yukitoshi; Yasufuku, Keiichi; Mah, Stanley Paklap

PATENT ASSIGNEE(S): Procter + Gamble Co., USA

SOURCE: PCT Int. Appl., 46 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001035912	A1	20010525	WO 2000-IB336	20000322

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

EP 1227784 A1 20020807 EP 2000-911152 20000322  
R: AT, BE, CH, DE, DK, FR, GB, GR, IT, LI, LU, NL, MC, PT,  
IE, SI, LT, LV, FI, RO, MK, CY, AL  
PRIORITY APPLN. INFO.: WO 1999-IB1815 W 19991111  
WO 2000-IB336 W 20000322

OTHER SOURCE(S): MARPAT 134:371584

AB Hair conditioning \*\*\*comps\*\*\* comprising antidandruff agent are described wherein the \*\*\*compr\*\*\* is substantially free of the group selected from a chelating agent, methylchloroisothiazolinone, and methylisothiazolinone. The \*\*\*comps\*\*\* comprise by wt. 0.1-15% a high m.p. fatty compd., compds. selected from 0.1-10% an amidoamine [R1CONH(CH2)mN(R2)2 wherein R1 = C11-24 \*\*\*fatty\*\*\* \*\*\*acid\*\*\* residue, R2 = C1-4 alkyl, and m = 1-4], an acid such as \*\*\*glutamic\*\*\* \*\*\*acid\*\*\*, lactic acid, HCl, malic acid and mixts. at a level such that the mole ratio of amidoamine to the acid is 1:0.3-1:1; or the combination of 0.1-10% a cationic conditioning agent and 0.1-10% a low m.p. oil having a m.p. of <25.degree.. Addnl., the \*\*\*compr\*\*\* contains an effective amt. of an antidandruff agent, a preservative system comprising, 0.1-1.0% benzyl alc., 0.1-1.0% phenoxyethanol, 0.05-1.0% methylparaben and 0.05-1.0% methylparaben, and 0.01-1.0% propylparaben and an aq. carrier. Thus, a \*\*\*compr\*\*\* contained cetyl alc. 2.0, Stearyl Alc. 3.6, stearamidopropyl dimethylamine 1.6, L- \*\*\*glutamic\*\*\* \*\*\*acid\*\*\* 0.512, \*\*\*zinc\*\*\* pyrithione 2.0, benzyl alc. 0.4, phenoxyethanol 0.3, methylparaben 0.2, propylparaben 0.1, silicone blend 3.36, perfume 0.4, 3-pyridinecarboxamide 0.05, dl-.alpha.-tocopherol acetate 0.05, hydrolyzed \*\*\*collagen\*\*\* 0.01, panthenol 0.05, panthenyl Et ether 0.05, octyl methoxycinnamate 0.09, Benzophenone-3 0.09, citric acid tp pH 3-7, and water to 100%.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2000:65471 CAPLUS

DOCUMENT NUMBER: 132:113058

TITLE: Composition for care and/or treatment of skin and tissues

PATENT ASSIGNEE(S): Mandorlo Investment G.m.b.H., Luxembourg

SOURCE: Ger. Offen., 6 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19831798	A1	20000127	DE 1998-19831798	19980715
CA 2337772	AA	20000127	CA 1999-2337772	19990715
WO 2000003689	A2	20000127	WO 1999-DE2202	19990715
WO 2000003689	A3	20000420		

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

AU 9960778	A1	20000207	AU 1999-60778	19990715
BR 9912821	A	20010502	BR 1999-12821	19990715
EP 1096918	A2	20010509	EP 1999-947221	19990715

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO

JP 2002520348	T2	20020709	JP 2000-559824	19990715
NO 2001000220	A	20010313	NO 2001-220	20010112

PRIORITY APPLN. INFO.: DE 1998-19831798 A 19980715  
WO 1999-DE2202 W 19990715

AB A topical \*\*\*compr\*\*\* for conditioning, protecting, and treating the skin and tissues contains .gtoreq.1 alkali metal and/or alk. earth salt and other \*\*\*minerals\*\*\*, .gtoreq.1 amino acid, and ZnO and/or an inorg. peroxide, as well as optionally a binder, a moisturizer, an essential oil, Tego-betaine, secondary plant constituents, unsatd. \*\*\*fatty\*\*\* \*\*\*acids\*\*\*, liposomes, vitamins, trace elements, and antimycotic and/or antimicrobial agents. The amino acids aid in the permeation of metal ions through ion channels into cells where they perform important regulatory functions. ZnO and inorg. peroxides

participate in regulation of the osmotic pressure. Thus, topical application of a \*\*\*compn\*\*\* contg. ZnO 8, Na<sub>2</sub>O<sub>2</sub> 3, Na phosphate 10, Ca phosphate 6, CaCl<sub>2</sub> 5, \*\*\*arginine\*\*\* 7, \*\*\*leucine\*\*\* 8.0, asparagine 5.5, \*\*\*valine\*\*\* 2.0, Hamamelis ext. 1.0, tannin 3.0, pectin 1.0, Tego-betaine 2.0, vitamin A 1.0, vitamin E 1.5, .beta.-carotene 0.5, \*\*\*collagen\*\*\* 1.5, aloe vera 2.0, olive oil 2.0, carotenoids 2.0, gelatin 1.0, liposomes 2.0, and H<sub>2</sub>O to 100.0 wt.% to the leg stimulated the microcirculation and caused a redn. in the adipose layer.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1998:49806 CAPLUS

DOCUMENT NUMBER: 128:114205

TITLE: Nutrient profile of horsemeat

AUTHOR(S): Badiani, A.; Nanni, N.; Gatta, P. P.; Tolomelli, B.; Manfredini, M.

CORPORATE SOURCE: Istituto di Approvvigionamenti Annonari, University of Bologna, Bologna, Italy

SOURCE: Journal of Food Composition and Analysis (1997), 10(3), 254-269

CODEN: JFCAEE; ISSN: 0889-1575

PUBLISHER: Academic Press

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Proximate \*\*\*compn\*\*\* and cholesterol content, \*\*\*fatty\*\*\* \*\*\*acid\*\*\* and amino acid profiles, selected \*\*\*mineral\*\*\* (Na, K, Mg, Ca, P, Fe, Zn, Cu) and vitamin (thiamin, riboflavin, niacin, pyridoxine, vitamin B12) content, total and sol. \*\*\*collagen\*\*\* content, and purine bases (adenine, guanine, xanthine, hypoxanthine) were detd. in composite samples prepd. from raw horse thigh muscles. Mean content (per 100 g edible portion) of protein, lipid, ash, and cholesterol was 19.8 g, 6.63 g, 0.98 g, and 61 mg, resp. Satd., monounsatd., and polyunsatd. \*\*\*fatty\*\*\* \*\*\*acid\*\*\* contents were 34.8, 46.5, and 18.6% of total \*\*\*fatty\*\*\* \*\*\*acid\*\*\* Me esters, resp., with 100 g flesh providing 1.97, 0.68, and 0.32 g of oleic, linoleic, and .alpha.-linolenic acid, resp. Compared to human requirements, horsemeat protein was high in \*\*\*lysine\*\*\* and \*\*\*threonine\*\*\* (1.57 and 0.84 g/100 g edible portion, resp.), but low in tryptophan (0.15 g). Compared to other meats, horsemeat proved to be a valuable source of P, Fe, Zn, Cu, and Mg (231, 3.89, 3.72, 0.20, and 28.9 mg/100 g edible portion, resp.), providing approx. 29, 28, 25, up to 13, and 10% RDA, resp. Vitamin B12 (2.08 .mu.g/100 g edible portion), pyridoxine (0.64 mg/100 g), and niacin (5.54 mg/100 g) met 208, 32, and 31% RDA, resp. Total \*\*\*collagen\*\*\* content was 1.17 g/100 g edible portion, 10% of which was sol. Adenine, guanine, xanthine, and hypoxanthine mean levels were 18.3, 8.23, 9.01, and 74.0 mg/100 g edible portion, resp.

L18 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1996:426491 CAPLUS

DOCUMENT NUMBER: 125:140953

TITLE: Nutritional composition of cultured sturgeon (Acipenser spp.)

AUTHOR(S): Badiani, A.; Anfossi, P.; Fiorentini, L.; Gatta, P. P.; Manfredini, M.; Nanni, N.; Stipa, S.; Tolomelli, B.

CORPORATE SOURCE: Istituto di Approvvigionamenti Annonari, University Bologna, Bologna, Italy

SOURCE: Journal of Food Composition and Analysis (1996), 9(2), 171-190

CODEN: JFCAEE; ISSN: 0889-1575

PUBLISHER: Academic

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Proximate \*\*\*compn\*\*\* and cholesterol content, \*\*\*fatty\*\*\* \*\*\*acid\*\*\* and amino acid profiles, selected \*\*\*mineral\*\*\* (Na, K, Mg, Ca, P, Fe, Zn) and vitamin (niacin, pantothenic acid, pyridoxine, vitamin B12) content, total and sol. \*\*\*collagen\*\*\* content, and purine bases (adenine, guanine, xanthine, hypoxanthine) were detd. in cultured sturgeon. White sturgeon (Acipenser transmontanus), Italian sturgeon (Acipenser naccarii) and Siberian sturgeon (Acipenser baeri) were individually analyzed. The results were reported as a whole, since no com. distinction is made between the three species. Mean content (per 100 g wet wt.) of protein, lipid, ash, and cholesterol was 19.23 g, 7.63 g, 1.09 g, and 66 mg, resp. Satd., monounsatd., and polyunsatd. (PUFA) \*\*\*fatty\*\*\* \*\*\*acid\*\*\* contents were 1.76, 3.12, and 1.46 g/100 g

wet wt., resp.; n - 3 PUFAs reached 1.18 g/100 g, whereas n - 6 PUFAs were 0.28 g/100 g. The n - 3/n - 6 ratio was 4.23. Compared to human requirements, sturgeon protein was esp. rich in histidine and \*\*\*isoleucine\*\*\* (0.82 and 0.92 g/100 g wet wt., resp.) but rather poor in tryptophan (0.14 g). The Mg concn. was fairly good (46.8 mg/100 g), providing more than 15% RDA. Vitamin B12 (1.27 .mu.g/100 g), niacin (5.62 mg/100 g), and pyridoxine (0.44 mg/100 g) were able to meet 127, 31, and 22% RDA, resp. Total \*\*\*collagen\*\*\* was 1.22 g/100 g wet wt., 68% of which was sol. Xanthine was never detected. Adenine, guanine, and hypoxanthine mean levels were 15.47, 9.94, and 92.71 mg/100 g wet wt., resp.

L18 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1996:137694 CAPLUS

DOCUMENT NUMBER: 124:173429

TITLE: Adjuvant compositions comprising a mineral salt and another immunostimulating compound  
INVENTOR(S): Kandil, Ali; James, Olive A.; Chong, Pele; Klein, Michel H.

PATENT ASSIGNEE(S): Cannaught Laboratories Ltd., Can.

SOURCE: PCT Int. Appl., 54 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9534308	A2	19951221	WO 1995-CA359	19950615
WO 9534308	A3	19960523		
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, UZ, VN				
RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5837250	A	19981117	US 1995-483856	19950607
CA 2192659	AA	19951221	CA 1995-2192659	19950615
AU 9526670	A1	19960105	AU 1995-26670	19950615
EP 765163	A2	19970402	EP 1995-921672	19950615
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
US 6290971	B1	20010918	US 1997-750624	19970226
PRIORITY APPLN. INFO.: US 1994-261194 A 19940616				
WO 1995-CA359 W 19950615				

OTHER SOURCE(S): MARPAT 124:173429

AB Adjuvant \*\*\*compsns\*\*\* for modulating an immune response to an antigen administered to a host comprise a \*\*\*mineral\*\*\* salt adjuvant and at least one other adjuvant. The \*\*\*compsns\*\*\* provide an adjuvanting effect on an antigen which is greater than the adjuvanting effect attainable by one of the adjuvants alone. An antigen is covalently bonded to a \*\*\*glycolipid\*\*\* analog to provide a discrete mol. which exhibits an enhanced adjuvanting effect on the antigen which is greater than the adjuvanting effect attainable in the absence of such covalent bonding. The antigen is microbial pathogens, bacteria, viruses, proteins, \*\*\*glycoproteins\*\*\*, \*\*\*lipoproteins\*\*\*, peptides, glycopeptides, toxoids, carbohydrates, tumor-specific antigens, etc. In example, synthetic peptides were prepd. as antigen, and N-(2-L- \*\*\*leucine\*\*\* -amino-2-deoxy-.beta.-D-glucopyranosyl)-N-octadecyldodecanamide acetate, tripalmityl-Cys-Ser-Ser-Asn-Ala, tripalmityl-Cys-Ser-Glu-Glu-Glu-Glu, tripalmityl-Cys-Ser-Lys-Lys-Lys-Lys, etc. were prepd. as adjuvant. Formulations contg. these synthetic antigen and adjuvants were prepd. as vaccines for HIV, flu, RSV, PIV3, flu BHA, pertussis toxoid, etc.

L18 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1968:47555 CAPLUS

DOCUMENT NUMBER: 68:47555

TITLE: Lipids of mineralizing epiphyseal tissues in the bovine fetus

AUTHOR(S): Wuthier, Roy E.

CORPORATE SOURCE: Forsyth Dental Center, Boston, MA, USA

SOURCE: Journal of Lipid Research (1968), 9(1), 68-78

CODEN: JLPRAW; ISSN: 0022-2275

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Because lipids had been consistently detected histol. at sites of new

calcification, the lipids of epiphyseal \*\*\*cartilage\*\*\* and bone in various stages of mineralization were examd. Lipids were extd. before and after demineralization and analyzed. Lipid content increased during proliferation and calcification of epiphyseal \*\*\*cartilage\*\*\*. Much less was seen in the adjacent cancellous bone; this corroborates histochem. findings. Similar \*\*\*phospholipid\*\*\* \*\*\*compsns\*\*\* were seen in the total lipids of \*\*\*cartilage\*\*\* and bone. Neutral (dipolar) \*\*\*phospholipids\*\*\* accounted for nearly 90% of the total lipid P and were almost completely extd. before demineralization. \*\*\*serine\*\*\* - and inositol-contg. \*\*\*phospholipids\*\*\* and 2 other, unidentified, acidic lipids could not be effectively extd. from calcifying tissues until after demineralization. Since the extn. of the acidic lipids was closely related to the degree of mineralization, it is possible that they form part of a \*\*\*lipoprotein\*\*\* - \*\*\*mineral\*\*\* complex in the calcifying matrix. Lysophospholipids were detected in all exts., but primarily in those made after decalcification. Acidic lipids are mainly responsible for the sudanophilia detected histol. at sites of new calcification. 41 references.

=> d his

(FILE 'HOME' ENTERED AT 13:38:13 ON 25 JUN 2003)

FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH, AGRICOLA' ENTERED AT 13:40:12 ON 25 JUN 2003

```

L1 2893766 S COMPOSITION
L2 651 S EXTRACELLULAR (W) MATRIX (W) (COMPOUND OR MATERIAL)
L3 1146174 S GLYCOSAMINOGLYCAN OR COLLAGEN OR CARTILAGE OR (CHONDROITIN SU
L4 49772 S GLUCPSAMINE OR (HYALURONIC ACID) OR HYALURONAN
L5 1171949 S L2 OR L3 OR L4
L6 781870 S PHOSPHOLIPID OR GLYCOLIPID OR LIPOPROTEIN
L7 924204 S CEREBROCID OR CEPHALIN OR (LINOLENICACID) OR (LINOLEIC ACID)
L8 1487890 S L6 OR L7
L9 1613239 S (L-AMINO ACID) OR GLYCINE OR ALANINE OR LEUCINE OR ISOLEUCINE
L10 1538454 S PHENYLALANINE OR TYROSINE OR TRYPTAPHAN OR ARGININE OR ASPARG
L11 2776078 S L9 OR L10
L12 243 S L1 (P) L5 (P) L8 (P) L11
L13 2 S L12 (P) (THERAPEUTIC OR PHARMACEUTIC OR MEDICAMENT)
L14 2 DUPLICATE REMOVE L13 (0 DUPLICATES REMOVED)
L15 1747792 S MINERAL OR VATAMIN OR ANTIOXIDANT OR (OMEGA-3 OIL) OR ZINC OR
L16 23 S L12 (P) L15
L17 9 DUPLICATE REMOVE L16 (14 DUPLICATES REMOVED)
L18 9 S L17 NOT L14

```

=> log y

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
182.75	183.38

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
-5.21	-5.21

CA SUBSCRIBER PRICE

STN INTERNATIONAL LOGOFF AT 13:59:59 ON 25 JUN 2003